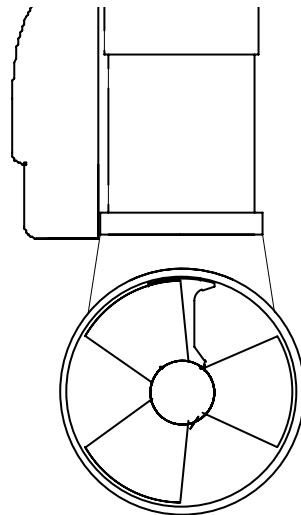




Electric Tunnel Thruster

Series 60 Mono Composite 12V 24V
Series 80 Duo Classic and Composite 12V 24V
With Electronic Thruster Controller



INSTALLATION

OPERATION

MAINTENANCE

Serial N°:

Start up date:

IT IS VERY IMPORTANT TO KEEP THIS MANUAL ON BOARD

TECHNOLOGY CENTER – 10 ALLEE FRANCOIS COLI – F 06210 CANNES-MANDELIEU FRANCE
TEL + 33 492 19 60 60 FAX + 33 492 19 60 61 www.max-power.com e-mail: mp@max-power.com

BEFORE STARTING THE INSTALLATION, IT IS RECOMMENDED TO CAREFULLY READ THE FOLLOWING GUIDE.

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Your thruster is a high quality technical product and should be treated as such. The employment of **qualified marine personnel**, with experience in bow thruster installation, is strongly advised. Where possible, the boat manufacturer's architects, design departments and/or shipyards should be consulted, prior to installation taking place. For any boat requiring official classification, bodies of approval should also be consulted at the earliest opportunity. In any case, all other bodies, governmental or otherwise, should be contacted to ensure conformity with legal regulations relating to the boat in question.

Your thruster should be delivered with the following parts:

Motor, Relay Assembly, motor coupling & Control box	Relay Cover	Motor Support	Drive Leg, Propeller Pin(s) & Coupling
Propellers CT60 (1) CT80 (2)	Safety Stickers x 2	Manual	

1 GENERAL INSTALLATION GUIDELINES

Determining the most efficient position for your thruster:

The tunnel should be placed in the deepest section of the hull and as far forward as possible.

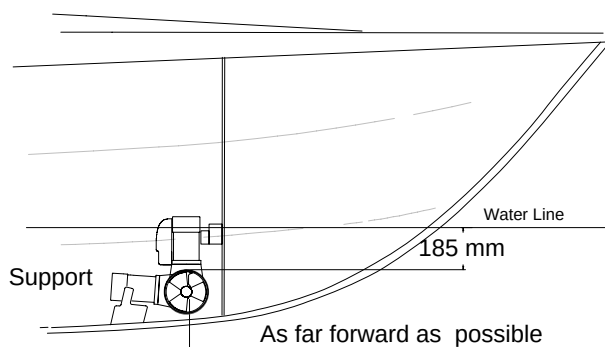
For maximum efficiency the tunnel should be installed no less than 100 mm from the water line.

Where the boat's design will not allow for this submersion, any subsequent efficiency deficit can be partly compensated using a position closer to the bow (to create greater leverage).

Decide on the most suitable configuration for both the tunnel and the electric motor.

Where necessary, the weight of the electric motor should be supported and its position secured.

The **propeller** should be centred in the tunnel and should not, under any circumstance, protrude from the opening.

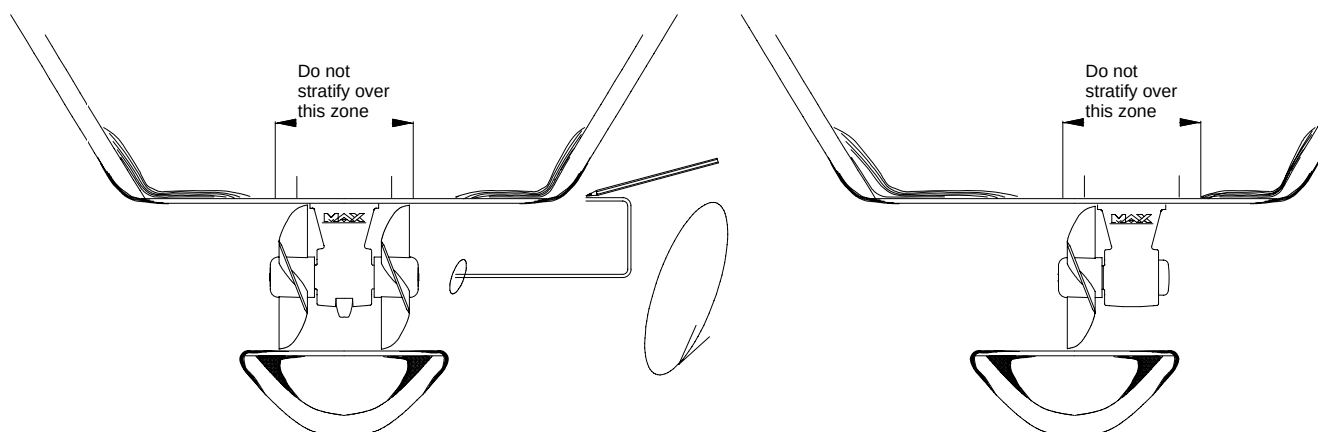


The area around the thruster should remain accessible, dry and ventilated.

The thruster can draw power from either the starter or auxiliary batteries, but use of the source closest to the thruster is recommended.

2 TUNNEL

When the final tunnel position is determined (and all dimensions have been checked), mark the centre of the tunnel's position and drill a Ø 10 mm hole. Make up a metal compass from 8 mm rod.



Fit compass in to the Ø 10 mm holes and trace the form of the tunnel on to the hull (elliptical).

After cutting out the elliptic hole, disc the interior surface of the hull, by approx. 10 to 15 cm around the holes.

The outside surface of the tunnel is then ready to be fibre-glassed.

Fit the tunnel and mark the areas to be fibre-glassed. Sand these areas inside and out. In certain installations it is preferable to drill the position of the thruster support before the installation of the tunnel.

Refit the tunnel. Apply reinforced fibreglass filler to all areas, taking care that you fill the gap between hull and tunnel. Stratify with a minimum of 8 coats of material and ISOPHTALIQUE RESINE alternating with mat and roving.

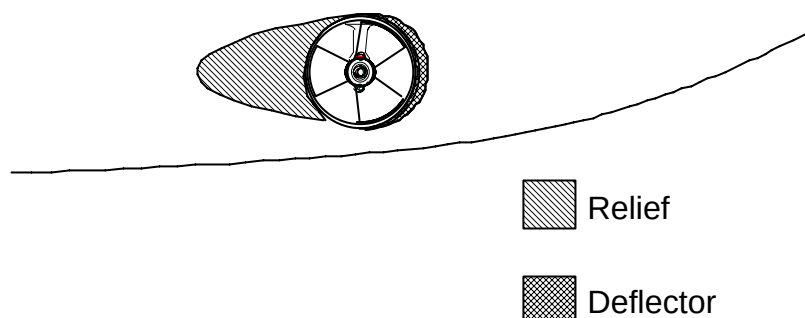
In the areas not accessible (i.e. under the tunnel), it is possible to apply simply reinforced filler. **DO NOT FIBREGLASS THE AREA OF THE MOTOR SUPPORT.**

It is recommended to lightly sand down the area where the electric motor is fitted.

On the outside, when the ISOPHTALIQUE RESIN has set, finish with an application of resin and material, followed with an additional coat on the hull, in the tunnel area.

To optimise the flow of water while sailing, deflectors & a relief should be fashioned.

These can be made up with several coats of reinforced filler in order to obtain the required hydrodynamic lines.



Once all fibreglass work is complete, apply a coat of epoxy or gel-coat to waterproof the entire area.

3 PROPELLER DRIVE LEG & MOTOR SUPPORT

The leg's gasket and the motor's support can be used to mark up the drilling position, in some cases it might be easier, to mark out the position, and drill before the stratification of the tunnel.

Centre and trace the drilling positions for the leg and its support.

Fit the leg along with the gasket, in the tunnel.

Check general positioning of the propellers.

Small pieces of folded cardboard can be used to check the spacing between the propeller tips and the tunnel is even all round. Slight adjustment to align the leg in its tunnel may be necessary.

After checks, remove leg etc, remount the assembly, covering the gasket with a jointing compound resistant to oil, salt water, et after fitting, remove all access compound.

The gasket must be between the leg and the tunnel, and not between the motor support and the tunnel.

Care must be taken at all times when fitting the leg into the motor support to ensure that the mating components are dirt free and covered with a light film of grease. (IMPORTANT: GRAPHITE GREASE MUST NOT BE USED).

Torque values: screw $\varnothing$ 8 mm = 30 Nm screw, tighten the two fixing screws alternately.

Once tightened, ensure that the propeller/s turn freely without touching the tunnel.

4 COMPOSITE DRIVE LEG

The installation of the composite drive leg is identical to that of bronze leg, except for the following points:

The composite drive leg is lubricated for life

The composite drive leg does not require an anode.

The composite drive leg **MUST NOT BE DISMANTLED** even partially.

5 ELECTRIC MOTOR

Position the motor on the support:

Insert the shaft of the motor into the slot of the leg (grease before fitting).

Position the motor and tighten screws (30 Nm).

Turn the motor & leg over by hand by turning a mounted propeller. If there is a hard point then the drive leg is badly positioned in the tunnel creating a bad motor / leg alignment, this can cause drive leg shaft failure.

6 PROPELLER (S)

Check that the propellers turn freely and that there is no tight spot. A certain resistance is normal from the motor.

When all is assembled and all screws are torqued down then continue the installation.

RECOMMENDATION: For prevention of calcium build-up on the propellers shaft, which would damage the oil seals, we recommend to apply silicon grease to shaft and oil seals before fitting the propeller(s).

Fit the fixing pins and propellers.

POSITION THE PROPELLERS OPPOSED AND NOT FACE-TO-FACE.

Tighten the fixing screws as recommended for the model:

SUPER POWER SERIES 60 to 125: Allen screw 3 mm must not protrude more than 2 mm out from the hub of the propeller. **If the Allen screw protrudes out more than 2 mm, THE PROPELLER IS NOT CORRECTLY IN PLACE AGAINST THE PIN.**

7 PROTECTION GRILLS

On certain installations which are close to the waterline, it may be necessary to fit protection grills. However, these grills will modify the thruster performance.

8 ELECTRICAL INSTALLATION

ATTENTION: An incorrect electrical installation will cause rapid deterioration / failure of the unit. Excessive voltage drop will cause relay and brush failure. Special attention should be given to the quality, capacity and condition of your batteries, and cable sizes.

REMEMBER: Take care to tighten correctly all electrical connections.

WARNING: Under no circumstances should any inflammable products be stored next to the electrical components of the thruster.

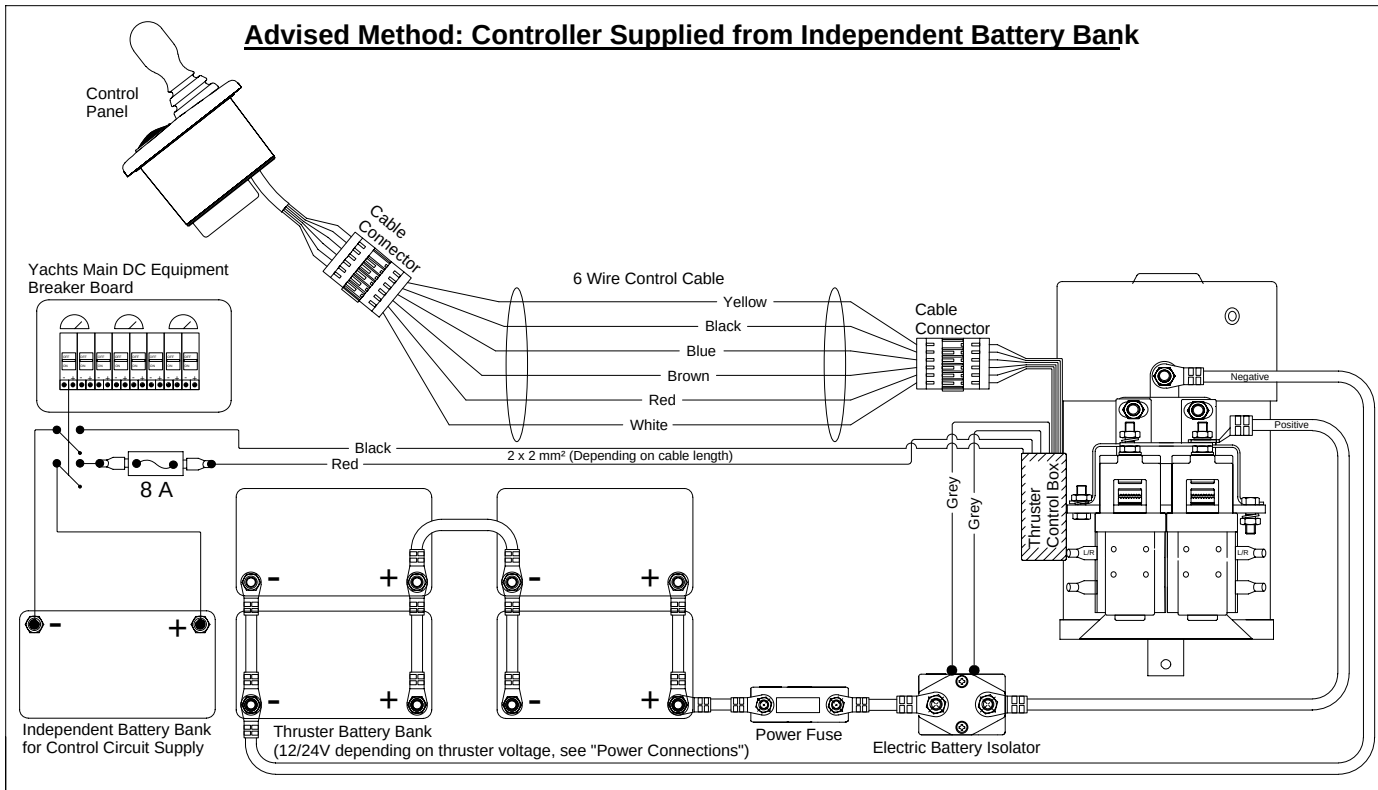
WARNING: It is essential to install a manual and if possible an electric battery isolator at the base of the thruster motor supply line.

When using a manual battery isolator it must be, visible, clearly marked & easily accessible.

9

Install a breaker/isolator in the supply wiring of the thruster control box on the boats' main electrical switchboard marked BOW THRUSTER:

This breaker/isolator should ideally be supplied from an independent battery bank, to the one used for powering the thruster unit.



NOTE: Thrusters which are equipped with a “thruster control box” can only be used with Max Power’s range of control panels as shown in this manual.

The thruster controller can be supplied in either 12V or 24V, depending on the thruster voltage.

The installer must protect the positive supply cable of the thrusters control box by means of a fuse as indicated in the above drawing. The size of the supply wires (red & black) depends on the length of the cable run, the voltage drop in these cables should not exceed 5% of the nominal battery voltage.

For safety reasons and in order to benefit from all the functions provided by the thruster controller, an electric battery isolator needs to be installed in the thruster motor's positive supply cable.

If an electric battery isolator is not used then simply seal-off the two grey wires coming out of the control box. It is important to isolate the thruster motor power circuit by means of the manual battery isolator after having left port & when the manoeuvre is finished, after docking.

Please refer to the drawing "Connection of Controller to Thruster Motor" in the back of this manual for more detail on the wiring of the controller to the thruster unit.

10 CONTROL PANEL AND THRUSTER CONTROL BOX FUNCTIONS

To switch the thruster "ON" or "OFF" follow the instructions on the diagrams below. When switched "ON" the unit will beep once and the green LED in the red push-button will light up.

When switched "OFF" the unit will beep twice and the green LED in the red push-button will go out.

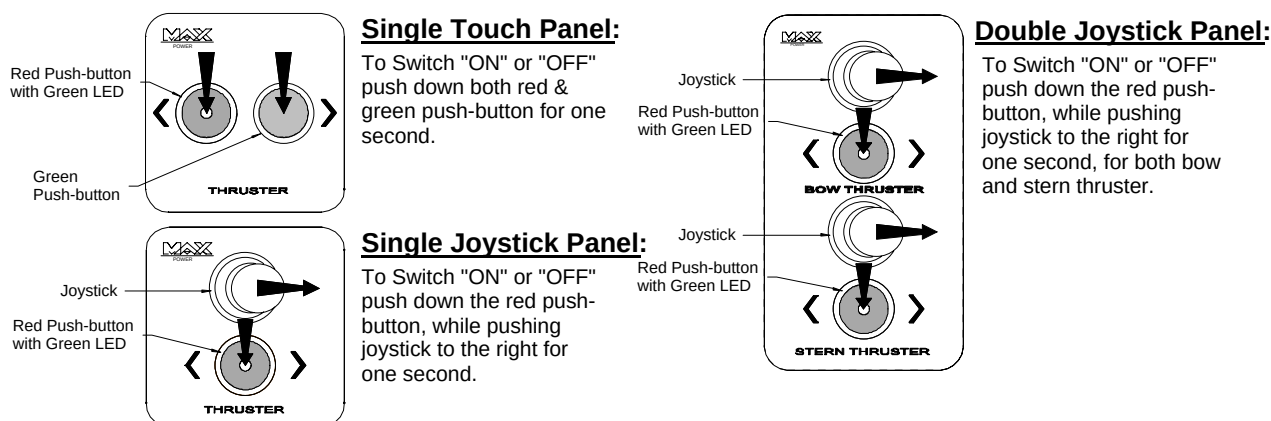
The thruster controller provides a time delay between left and right thrust in order to avoid rapid direction changes, but no delay when thrusting to same side.

If the thruster motor overheats the unit will start beeping, while the green LED will flash, until the thruster motor has cooled down.

Once the overheat alarm starts, one has 10 seconds of actual thruster use before the unit automatically shuts down. The unit will then not be able to be switched on again until the motor has cooled down.

If the thruster unit has not been used for a period of thirty minutes the unit will automatically switch off. Before switching off automatically the unit will warn you by beeping once followed by a second beep a few seconds later, after which the unit switches off.

In order to isolate the power circuit of the thruster motor as described in the two points above one would need to install an electric battery isolator, as advised by Max Power (see *"Wiring Diagram" in the back of this manual for more detail*).



11 CONTROL PANEL INSTALATION

Control panels should be protected from the natural elements while the thruster is not in use. Install the control panel(s) in easily accessible positions, **without** obstructing the main engine and/or steering controls.

When fixing the panel with the black stainless steel screws, make sure to install the pre-cut rubber seal, as supplied with the panel, ensuring that it is in the correct place.

IMPORTANT: Only when totally finished and satisfied with wiring and positioning of the unit, clip-on the face panel/cover.

Please note that panels are only fully waterproof from the front, if installed correctly. However the area behind the dashboard should be kept dry to avoid the risk of oxidation of the cable connector contacts.

For full installation instructions of the control panels please refer to "Installation Guidelines" as supplied with each control panel.

12 BATTERY REQUIREMENTS

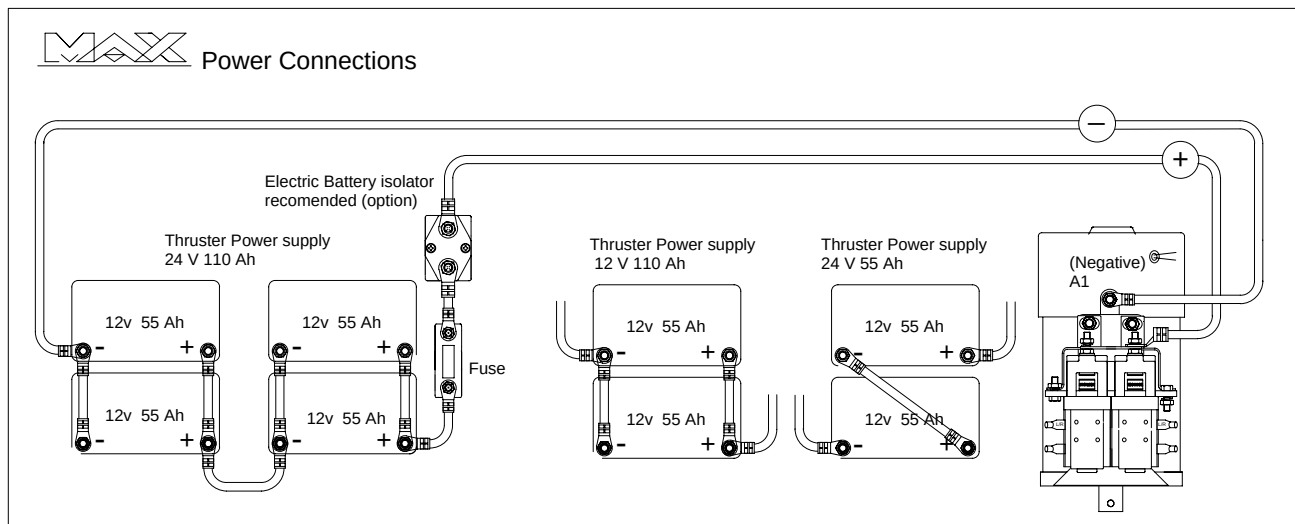
CAUTION: refer to the maker's technical characteristics (capacity and starting current) of the battery used.

Example: Exide Maxxima 900, 12 volts, capacity 55 Ah / **starting current 800 CCA**.

The higher the CCA the more suitable the batteries are, large capacity batteries with a low **CCA** may be inferior to much smaller battery's with a higher **CCA**.

NOTE : in the case of dedicated batteries charged by alternator, the reference for the charge must be taken after the diode-splitting block (if in doubt, consult a marine electrician).

Thruster performances are quoted with a minimum 22 Volts at the terminals of a 24 Volts motor or 11 for 12 volts (thruster running, boat in water).



13 POWER CABLE SECTIONS (BATTERIES TO RELAY)

Measure the total length (the shortest and most direct route possible) of the main power cables between the batteries and the motor power relay (+ & - in drawing). Total length is the + length added to the - length .

NOTE: when choosing your cable sections do not forget to take into consideration the ampacity rating of the cables concerned. These cables must be of the highest thermal class available.

The following chart takes into account only permissible voltage drop, it does not represent the ampacity rating.

The ampacity rating is specific to each cable manufacturer.

Cable lengths to and from	Series 60 / 80 12 V	Series 60 / 80 24 V
For 5 m (2,5 x 2)	50 mm ²	35 mm ²
For 10 m (5 x 2)	70 mm ²	50 mm ²
For 15 m (7,5 x 2)	95 mm ²	70 mm ²
For 20 m (10 x 2)	120 mm ²	95 mm ²

14 FUSE

Sizing of fuses for overcurrent protection are a function of the cable sizes in the circuit, not the amperage drawn by the appliance (thruster motor) in the circuit. The current carrying capability (ampacity) of this cable is determined by referring to the appropriate cable datasheet, and then a fuse is chosen with a ratio no higher than this (it can be lower). If there is not an exact match between cable ampacity and available fuse ratings, an overcurrent device (for example a fuse) with a rating of up to 150% of the ampacity of the cable can be used, but that's the limit.

After choosing the required fuse size verify if thruster motor current(given below) is not too big for the fuse, thus causing nuisance blowing of the fuse. If fuse is found to be too small for motor current a bigger cable and fuse size need to be used.

Series/V	Amps
60/12	415
80/12	490

Series/V	Amps
60/24	240
80/24	285

15 TESTS

UNDER NO CIRCUMSTANCES SHOULD THE THRUSTER OR ITS MOTOR BE ACTIONED WITH THE BOAT OUT OF THE WATER.

THE TESTS MUST BE CARRIED OUT WITH THE BOAT IN THE WATER, AND THE BATTERY (IES) AT 100% CHARGE; ENGINES RUNNING AND THE CHARGING SYSTEM AS PER NORMAL OPERATION.

16 ELECTRICAL MEASUREMENTS

In normal "use" configuration for, i.e. thrusters running, yacht in the water, with fully charged batteries receiving a charge (alternator). Electrical measurements should be made at the following points:

At the batteries

At the battery cut off switch

At the fuses

At the motor's connections

At supply arriving at thrusters control box

These measurements will enable you to detect voltage drop. The voltage read should be of approximately 11 volt for a 12-volt system and 22 volts for 24-volt system.

Should the voltage measured be too low the following points need to be checked:

Insufficient battery capacity

Bad battery quality

Insufficiently charged batteries

Incorrect cable sections

Badly tightened connections.

17 OPERATION

With the control system breaker/isolator and manual battery isolator switched on:

Switch on control panel, as described previously in manual.

Push red button or incline joystick to the left, boat moves to the left.

Push green button or incline joystick to the right, boat moves to the right.

If, during tests the boat moves in the wrong direction, change the blue and the brown wires around on your power relay.

When manoeuvring take into consideration the inertia effects, remember the boats momentum continues after you release the joystick /button, therefore remember to release the control prior to reaching your desired position.

Care must be taken not to use the thruster in areas swimming areas or areas of floating debris.

Maximum running time: S2-3 min. rating (depending on room temperature).

18 ALARM(S) OR THERMAL SWITCH-OFF

The electric motor of the thruster is fitted with a thermal switch as standard. If the thruster motor overheats the buzzer in the control panel will start beeping, while the green LED in the red-push button will flash, until the thruster motor has cooled down again.

Once the overheat alarm starts, one has **10 seconds off actual thruster use** before the unit automatically shuts down. The unit will then not be able to be switched on again until the motor has cooled down.

19 SAFETY

Switch off means on both the DC equipment panel (control supply) & the thruster power battery isolator (thrusters supply) after having left port & when the manoeuvre is finished, after docking. Under no circumstances should any inflammable products be stored next to the electric components of the thruster. Care must be taken not to use the thruster in swimming areas or at any time when people maybe in the water close to the thruster.

WARNING: Never temper with thruster/thruster turbine, if not 100% sure that both control and power circuits have been isolated, except if taking electrical measurements on the thruster motor or relay.

20 MAINTENANCE

The SUPER POWER requires minimum maintenance:

Check regularly the condition of the batteries Voltage drop is the most frequent cause of rapid deterioration of the relay and motor brushes.

Carry out a regular check of the batteries, connections and power cables.

Remove motor and clean out dust from motor-brushes with compressed air. Replace brushes if found to be worn by more than 70%.

The electric motor must be kept dry and aerated.

Check relay contact surfaces and replace if necessary.

21 COMPOSITE LEG

The composite drive leg is lubricated for life and does not require changing of oil.

The composite drive leg does not require an anode.

The composite drive leg must not be disassembled, even partially.

Paint leg and propellers with antifouling (make sure that they were well prepared and primer has been used).

Always keep the propellers and tunnel clean.

For prevention of calcium build up on the drive shafts, which would damage the oil seals, before fitting the propeller(s), cover drive shaft and the oil seals stainless steel cover with silicon grease. This should be done on an annual basis after cleaning of outside of leg.

Do not use aggressive solvents as they might damage drive leg seals.

If drive leg oil seals are found to be worn, replace drive leg with exchange unit.

22 CLASSIC LEG

Check the oil in the leg every year, and change if necessary (oil drain plug under the anode - copper joint should be changed). See chapter PROPELLER, LEG, in the installation manual.

The anode should be frequently checked and changed when necessary (At least every year).

When the boat is ashore, check for evidence of fishing line, etc... in the propellers.

For prevention of calcium build up on the drive shafts, which would damage the oil seals, before fitting the propeller(s) cover drive shaft and oil seals, with silicon grease. This should be done on an annual basis after cleaning of outside of leg.

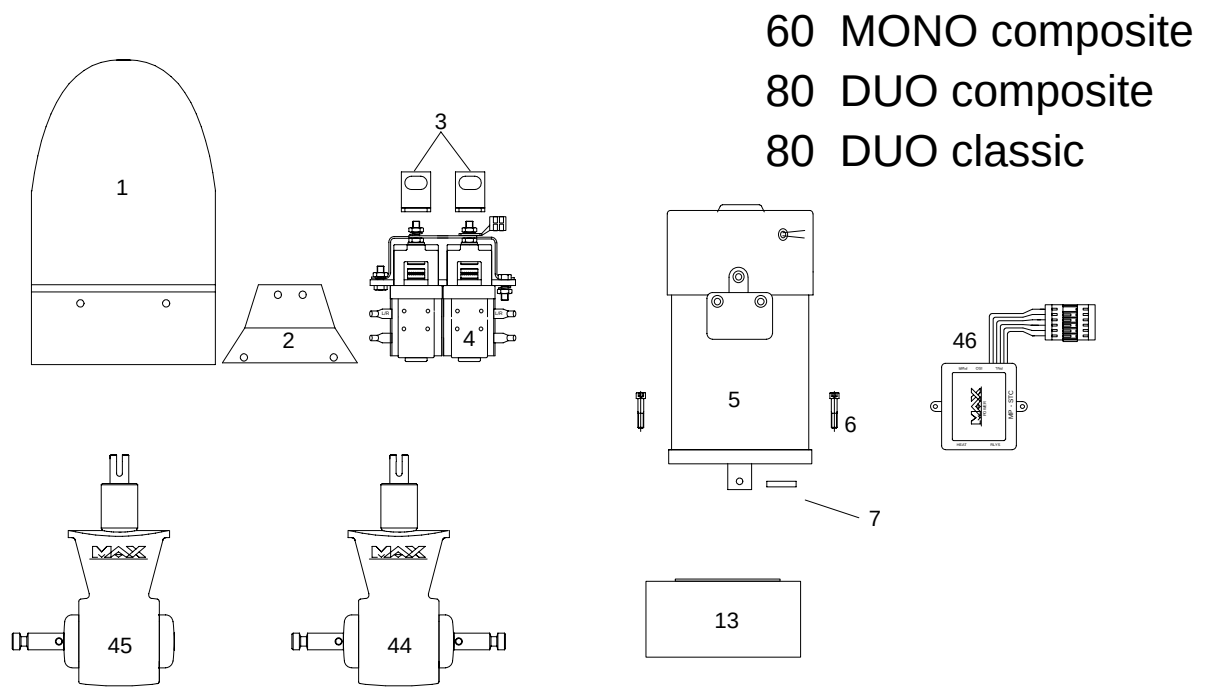
Do not use aggressive solvents as they might damage drive leg seals.

If drive leg oil seals are found to be worn, replace drive leg with exchange unit.

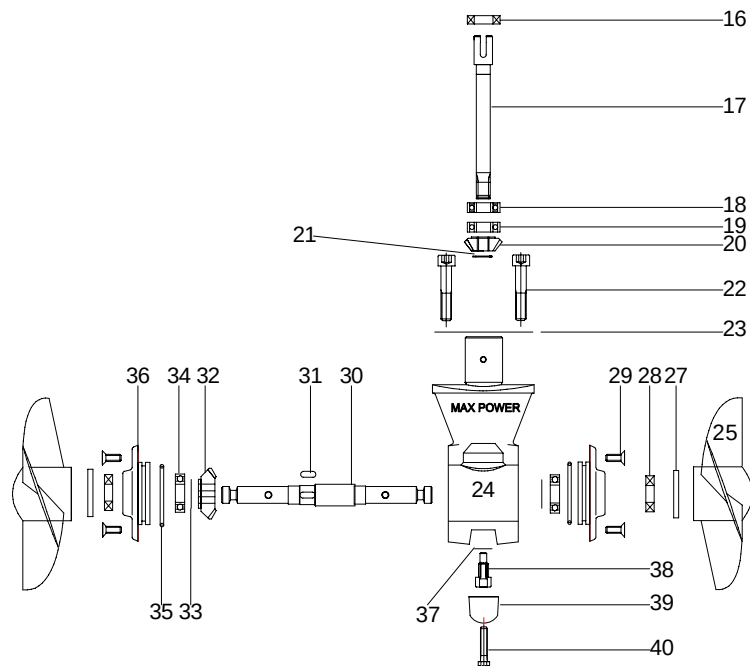
Always keep the propellers and tunnel clean.

Paint leg and propellers with antifouling (make sure that they were well prepared and primer has been used).

Do not paint the anode.

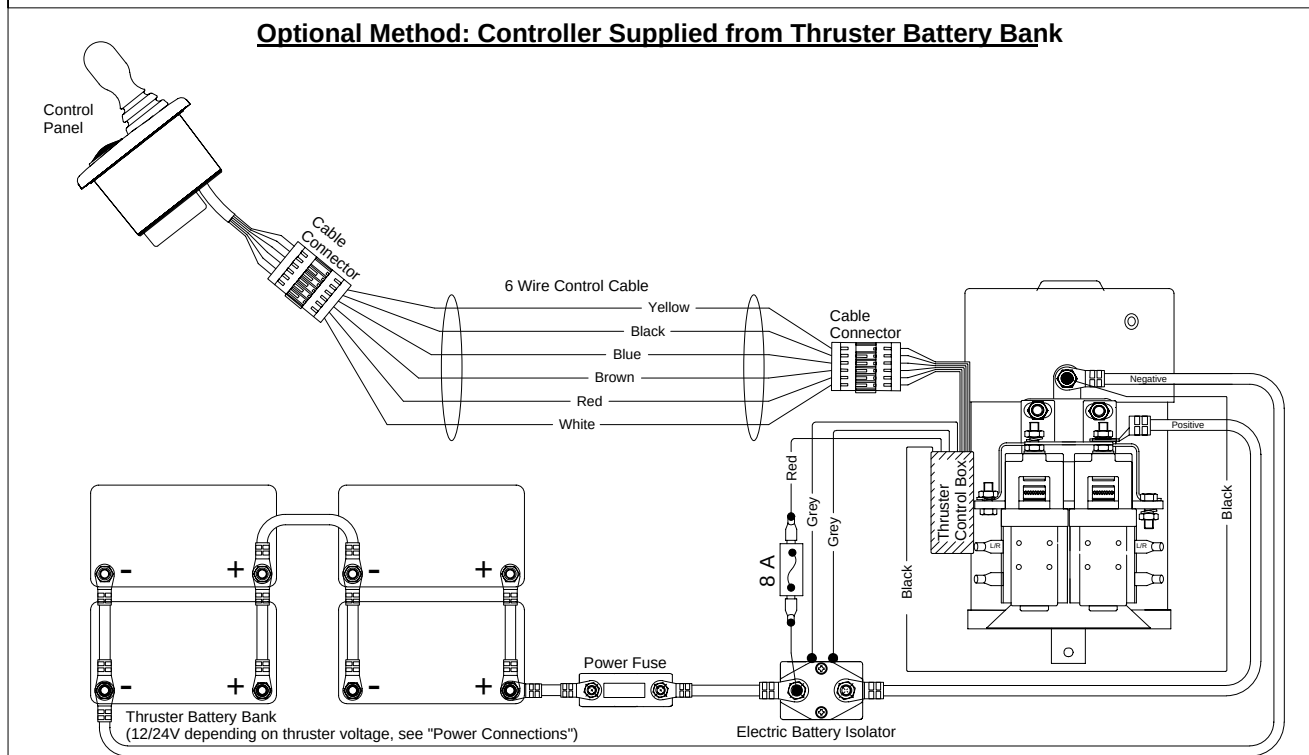
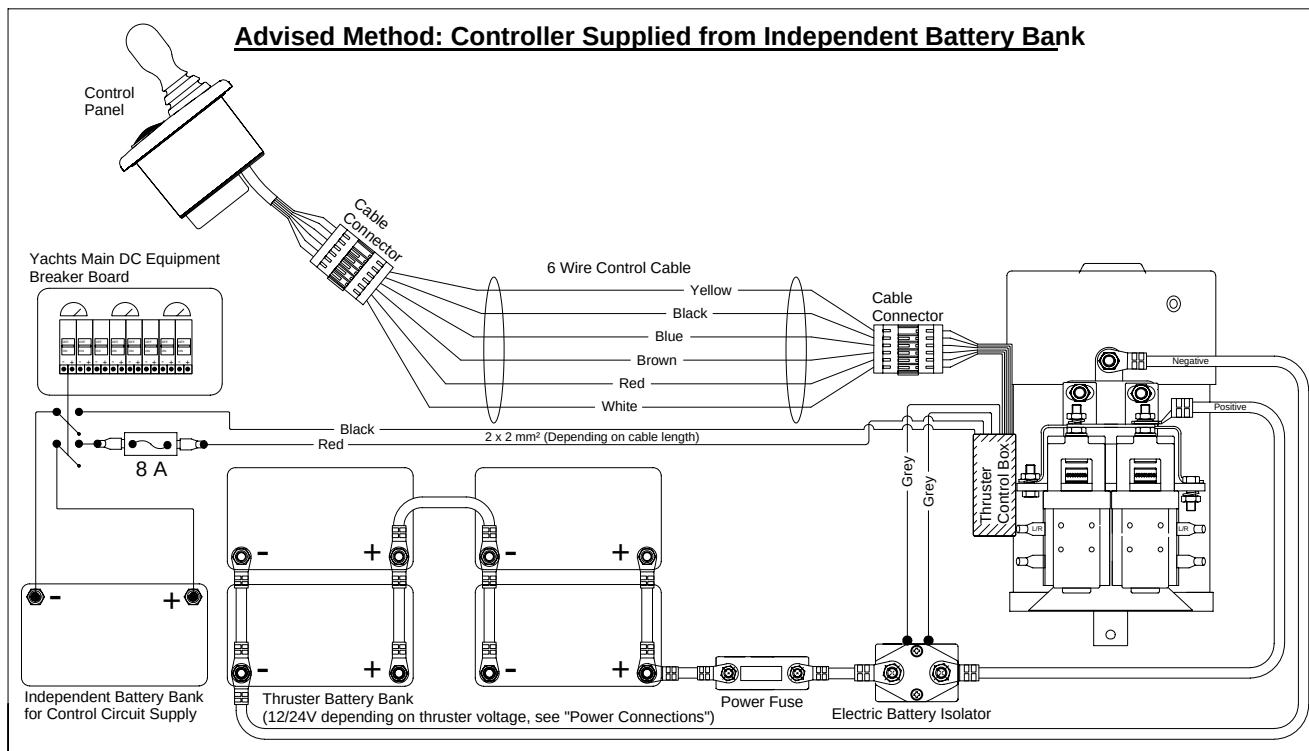


43 DUO classic

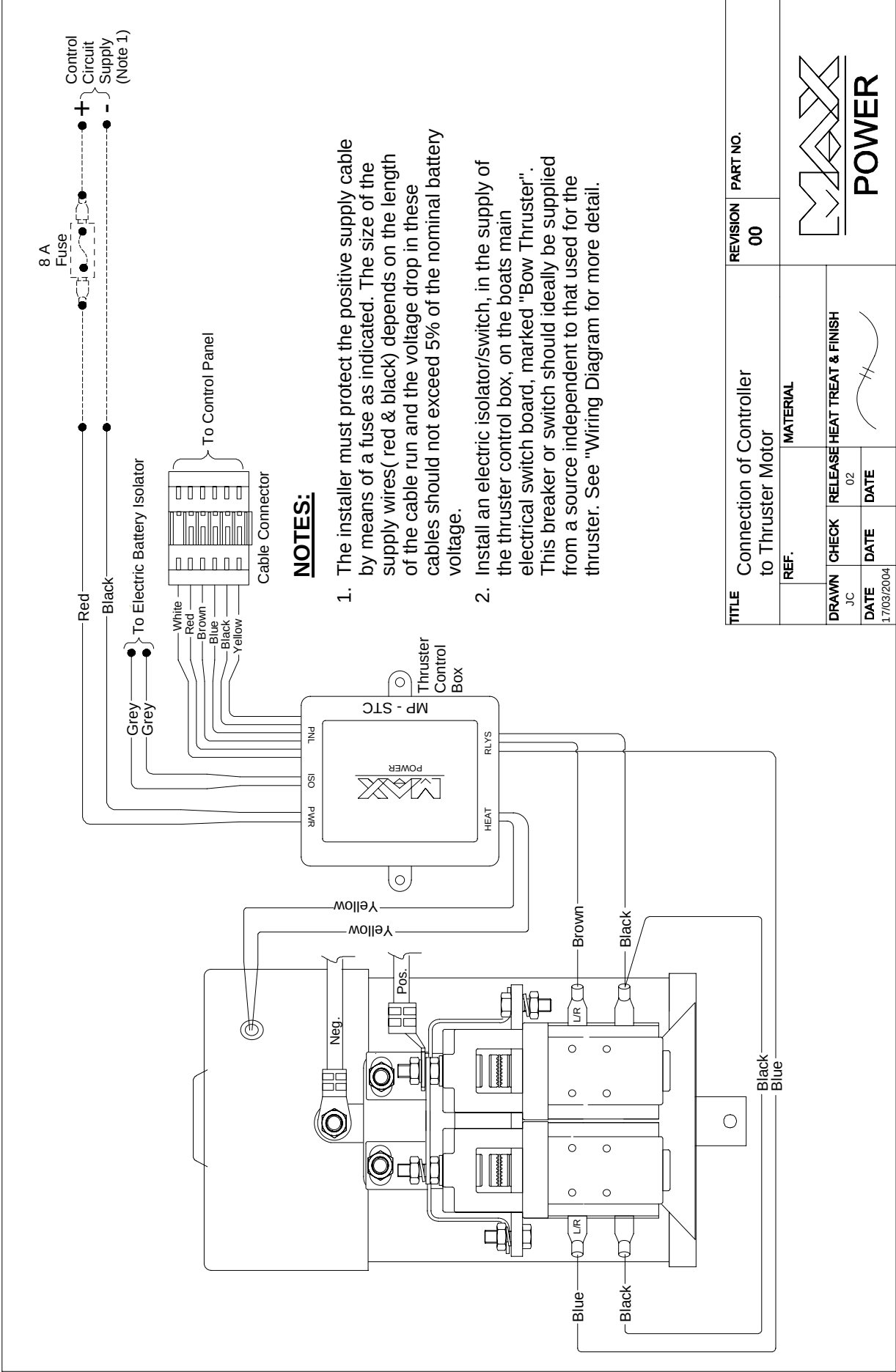


SERIES 60 MONO & 80 DUO COMPOSITE & CLASSIC

		60	COMPO	80	CLASSIC	80	COMPO	
N°	DESCRIPTION	MPSP C412 12V	MPSP C424 24V	MPSP 0512 12V	MPSP 0524 24V	MPSP C512 12V	MPSP C524 24V	REFERENCES
1	Cover	1	1	1	1	1	1	MP05 2021
2	Relay support	1	1	1	1	1	1	MPOP 5212
3	Connecting strip	2	2	2	2	2	2	MPOP 3154
4	Complete 12V relay	1		1		1		MP05 3024
4	Complete 24V relay		1		1		1	MP05 3026
5	12V Motor	1		1		1		MP053030
5	24V Motor		1		1		1	MP053031
1,2,3,4 ,5	12V motor + relay	1		1		1		MP058312
1,2,3,4 ,5	24V motor +relay		1		1		1	MP058324
6	Motor fixing bolt	4	4	4	4	4	4	MPOP 5241
7	Motor drive pin	1	1	1	1	1	1	MP05 8031
13	Composite Motor Support	1	1			1	1	MP05 8035
16	Drive shaft seal			1	1			MPOP 2030
17	Drive shaft			1	1			MPOP 4060
18	Upper shaft bearing			1	1			MPOP 5250
19	Lower shaft bearing			1	1			MPOP 5251
20	Upper gear			1	1			MPOP 5051
21	Clips			1	1			MPOP 5280
22	Composite Leg fixing bolts	2	2			2	2	MPOP 4130
22	Classic Leg fixing bolts			2	2			MPOP 5340
23	Fibre joint 11,5 mm	1	1	1	1	1	1	MPOP 2060
24	Leg housing			1	1			MPOP 5270
25	Propeller D 185	1	1	2	2	2	2	MPOP 8080
27	Propeller pin	1	1	2	2	2	2	MPOP 5221
28	Oil seal output shaft			2	2			MPOP 2070
29	Screw Cap			4	4			MPOP 5320
30	Double propeller shaft			1	1			MP08 5020
31	Shaft key			1	1			MPOP 5290
32	Lower gear			1	1			MPOP 5061
33	Shim Set			2	2			MPOP 5350
34	Propeller shaft bearing			2	2			MPOP 5260
35	O' ring			2	2			MPOP 2040
36	Cap			2	2			MPOP 53 80
37	Copper washer			1	1			MPOP 2050
38	Drain plug			1	1			MPOP 5300
39	Anode			1	1			MPOP 5390
40	Anode screw			1	1			MPOP 5311
43	Complete Bronze Leg			1	1			MP08 8040
44	Composite leg Duo					1	1	MP08 8100
45	Composite leg Mono	1	1					MP05 8100
46	Thruster Control Box	1	1	1	1	1	1	MPOP5701



TITLE Super Power with Controller: Wiring Diagram				REVISION 00		PART NO.	
REF.		MATERIAL					
DRAWN JC	CHECK	RELEASE 02	HEAT TREAT & FINISH				
DATE 17/03/2004	DATE	DATE					



TROUBLE SHOOTING GUIDE

Before contacting your nearest distributor please check the following list for probable causes

PROBLEM	PLEASE CHECK
<u>THRUSTER NOT OPERATING</u>	
Check correct electric motor voltage	check cables
No main power	check batteries power on/off switch check batteries check fuse
Control Panel	check if panel is switched on (green LED on?)
Relay not functioning	check wiring and signal relay
Relay clicking	Insufficient voltage – check batteries
<u>RELAY FAILURE</u>	
Incorrect or damaged batteries	Control batteries for size and condition (see manual for recommended size)
Excessive voltage drop	Attain a min 10.8V at relay when operating 12V system Attain a min 21.6V at relay when operating a 24V system Battery cable section too small – see manual. Voltage losses at cable connections
<u>LACK OF THRUST</u>	
Low battery power	check battery condition and charge
Missing or damaged propeller	check propellers
<u>PROPELLORS TOUCHING TUNNEL</u>	
Drive leg incorrectly aligned in tunnel	Align drive leg in tunnel Modify fixing holes in necessary
<u>STEEL TUNNELS</u>	
Incorrect mounting of electric motor	check tunnel Dia inside and outside are as recommended

Trouble shooting guide cont..

ELECTRIC MOTOR DRIVE PIN BREAKAGES

Tunnel thickness too thin (less than 6mm)	Fit a joint under motor support to attain correct thickness
Debris in propellers / tunnel	Clear obstruction, check drive leg input shaft for free running, replace drive pin

DRIVE LEG INPUT SHAFT BREAKAGE

Thruster motor support not parallel	Reface tunnel ensure interior & exterior are parallel to drive leg (probably due to excess fibreglass added to tunnel)
	Correct tightening of the fixing bolts electric motor support/drive leg

WARRANTY COVERAGE

Introduction

The purpose of this document is to set out the terms of warranty cover offered in relation to products purchased by the End User from Max Power or its approved network of resellers. This document will adhere to the following format:-

Section 1	Definitions
Section 2	Period of Coverage
Section 3	Warranty Registration
Section 4	Warranty Terms
Section 5	Warranty Exclusions
Section 6	Procedural Guidelines
Section 7	Service Centres

1) Definitions

Authorized Repair Number – The number given by Max Power on reporting a fault with your thruster
Dealer – An authorized Max Power sales centre
End User – The boat supplied with supplied equipment and the owner thereof
Installer – The authorized centre responsible for the installation of your thruster
Manufacturer – supplier of the equipment under warranty
Pleasure Craft – Vessels used for owner's personal use that have no commercial use (i.e Charter boats or work boats)
Resellers – Max Power approved distributors and dealers
Serial Number – Number in upper right hand corner of Warranty document
Supplier – The manufacturer (Max Power)
Warranty – The terms and conditions that are covered by the manufacturer

2) Period of Coverage

The equipment manufactured by the Supplier is guaranteed to be free from defective workmanship, components and materials under normal usage conditions for a period of two years from the date of purchase by the End User. This warranty is transferable to subsequent owners of this equipment during the period of coverage.

3) Warranty Registration

Register your purchase now to receive free extended warranty coverage. This can be done using one of the following methods (NB. proof of purchase must be included to establish that equipment is still under warranty):

- a) The quickest and easiest method to register your warranty is to fax the attached installation check list and warranty registration to the Manufacturer
(Fax: +33 4 92 19 60 61)
- b) Mail in your warranty registration document, please ensure that you make a copy before sending it. (10 Allée F Coli, 06210 Cannes-Mandelieu, France)

Warranty Document Cont.

4) Warranty Terms

If the material is used for anything other than for pleasure craft, the guarantee is limited to a six-month period.

Year 1 - All factory testing, diagnosis, repairs and replacements are performed at no charge to the End User. All parts and up to two hours of labour are covered for repairs and replacements conducted in the field.

Year 2 - All factory testing, diagnosis, repairs and replacements are performed at no charge to the End User. This excludes any damage or faults occurring from normal wear and tear on the following items: engine, oil seals, relay contacts (If warranty is registered within the 3 month period following installation)

5) Warranty Exclusions

Damage due to modifications or installation contrary to published specifications

Cost of hauling the boat

Damage due to repairs performed by an unauthorized service centre

Damage due to lack of normal maintenance services

Damage due to water

Parts replaced due to normal wear and tear

Repairs performed without knowledge of manufacturer (please contact dealer to receive Repair Authorization Number)

Tampering of equipment by the End User

Cost of travel to and from the job site

Cost of economic loss, including injury to any person, damage to property, loss of income or profit, communication, lodging, inconvenience

Consequential damage due to failure, including those arising from collision with other vessels or objects

6) Procedural Guidelines

PLEASE VIEW THE TROUBLE SHOOTING LIST TO ASCERTAIN OR SOLVE ORIGIN OF PROBLEM PRIOR TO CONTACTING THE DEALER/INSTALLER

- 1) Contact your dealer/installer to report the problem.
 - a. If you do not know who this is contact the nearest Max Power distributor
 - b. If you are in foreign waters please contact the nearest Max Power distributor
- 2) Ensure you have your serial number and model number to hand (top right hand corner of warranty)
- 3) Dealer/Installer will come to site to decipher the cause of the fault
- 4) If the cause of fault is due to a manufacturing problem the dealer will contact Max Power to receive Repair Authorization Number.
- 5) If the problem is due to an installation error please contact your installer.

IF POSSIBLE: PLEASE TAKE PHOTOGRAPHS OF THE THRUSTER TO SHOW PROBLEM

The warranty as outlined above is only applicable to MaxPower manufactured thrusters and optional equipment as used in marine pleasure industry. The supplier holds the exclusive right to test the product and determine whether it is defective.

DISTRIBUTOR CONTACT LIST

SOUTHERN EUROPE

<u>CYPRUS</u> OCEAN MARINE EQUIPMENT LTD Limassol Tel: + 357 53 69 731 Fax: + 357 53 52 976 Email: oceanm@spidernet.com.cy	<u>CYPRUS</u> TUTI MARE TRADING Limassol Tel: + 357 25 431 313 Fax: + 357 25 431 300 Email: tutimare@cytanet.com.cy
<u>FRANCE & MONACO</u> REYA Cannes La Bocca Tel: + 33 493 90 47 00 Fax: + 33 493 47 42 57 Email: reya@reya.com <u>FRANCE</u> ACCASTILLAGE BERNARD Mandelieu Tel: +33 4 93 90 47 47 Fax: +33 4 93 90 47 53 televente@accastillage-bernard.fr	<u>GREECE</u> ALEX MARINE Piraeus Tel +30 10 41 29 539 Fax: + 30 10 41 12 932 Email: alexmarine@otenet.gr <u>SLOVENIA & CROATIA</u> ANORTI Ljubljana / Zagreb Tel: +386 1 544 6436 / +385 98 1 896 770 Fax: +386 1 5446435 / +358 23 386 075 info@anorti.si / info@anortiadria.hr
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<u>DENMARK</u> PALBY MARINE Vejle Tel: + 45 75 88 13 11 Fax: + 45 75 88 17 01 Email: palby@palby.dk <u>ICELAND</u> VELASALAN Reyhavik Tel: +354 580 5312 Fax: +354 580 5301 Stefan@velasalan.is	<u>GERMANY</u> SIMRAD Schieswig Tel: + 49 4621 961 30 Fax: + 49 4621 9613 28 Email: schleswig@simrad.de <u>GERMANY</u> NAVIMO Deutschland 56325 Lorient Tel : +49 6105 92 10 09/10 Fax : +49 6105 92 10 11 plastimo.international@plastimo.fr
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<u>UK</u> PLASTIMO UK Eastleigh, Hampshire Tel: + 44 870 751 4666 Fax: + 44 870 751 1950 Email: p.callus@plastimo.co.uk	<u>UK</u> AR PEACHMENT Norfolk Tel: + 44 1603 714 077 Fax: + 44 1603 714 211 Email: kevin@peachment.co.uk

AMERICAS

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<u>BRAZIL</u> SAILING PRODUCTS Rio de Janeiro Tel: + 55 21 494 7222 Fax: + 55 21 494 7223 Email: spsail@ibm.net	<u>USA</u> SCANDVIK Vero Beach, Florida Tel: 1 561 567 28 77 Fax: +1 561 567 91 13 Email: sales@scandvik.com

SOUTH EAST ASIA

<u>AUSTRALIA & SINGAPORE</u> OCEANTALK Sydney Tel: + 612 9981 9500 Fax: + 612 9981 9555 Email: rk@oceantalk.com.au	<u>NEW ZEALAND</u> POWER & MARINE Wiri Auckland Tel: + 64 9 914 55 55 Fax: + 64 9 914 55 88 Email: sales.staff@powermarine.co.nz
<u>CHINA</u> RONSIL DEVELOPMENT Hong Kong Tel: + 852 2834 1633 Fax: + 852 2834 0201 Email: ronsil@netnavigator.com <u>CHINA</u> Holylight Trading Hong Kong Tel: +852 2834 7048 Fax: 852 2543 6156 oandy@hknet.com	<u>SINGAPORE</u> OCEANTALK ASIA Singapore Tel: + 65 6543 4041 Fax: + 65 6543 4042 Email: oceantalkasia@pacific.net.sg

MAX POWER - 10 ALLEE F COLI - 06210 MANDELIEU-CANNES – FRANCE - TEL : + 33 4 92 19 60 60
FAX : + 33 4 92 19 60 61 - EMAIL : MP@MAX-POWER.COM - WWW.MAX-POWER.COM



Serial N°:

WARRANTY FORM

VERY IMPORTANT

Please complete this form and fax a COPY to Max Power with a copy of the installation invoice or the invoice of the yacht/boat in order for the warranty to come into effect.

To Be Completed by Owner:

Name of Owner:..... Contact No. :.....
Address: E-mail:
Country:.....Postcode:
Name of Skipper:..... Contact No. :.....
Signature of Owner: Date:

To Be Completed by Installer:

Installation Details:

Thruster Model :..... Electric/Hydraulic :.....
Date of Installation :..... Date of Launching Boat :
Type and model of Boat : Builder:..... Build Year:
Pleasure or Commercial craft?:..... Sail or Motor:..... Rig:.....
Navigates at Sea or River or Canals?..... Hull construction material :.....
L.O.A. :.....L.W.L. :..... Beam :..... Free Board:.....
Displacement Weight at Full Load: Height & Length of Superstructure:.....
Tunnel Diameter, Thickness, Material & Length:
If Electric, Battery Type, Size & Number:

Installation Checks:

	Before Operating Thruster	While Operating
Thruster		
<u>Electrical:</u> Voltage at Batteries		
Voltage at Thruster Motor		
Charge at Alternator in Amps		
Ampere in Motor Power Circuit		
<u>Mechanical:</u> Verify if drive coupling between motor and drive leg is correctly tightened:..Yes / No		
Verify if all cable connections is sufficiently tightened:.....Yes / No		
If hydraulic verify all hydraulic connections: Yes / No		

Thruster installation tested and working correctly: Yes / No

Important: Refer to installation manual for full installation details.

Name of Installer: Signature:.....

PLEASE RETURN BY FAX: + 33 4 92 19 60 61
TO GAIN YOUR EXTRA WARRANTY COVERAGE